



PRODUCT SPECIFICATION

產品規格書

產品名稱 Description	產品料號 Part No.	圖號 Drawing No.
4973 Series 4.2 mm Wire to Board Straight Wafer	4973-1XxxTSxB-V0	4973D02016

PRODUCT NAME 產品名稱	DOCUMENT No.: 文件編號	Rev. 版本	OUPIIN
4973 Series 4.2 mm Wire to Board Straight Wafer (RoHS)	Q4973-PSS-I002	A (I667)	歐品電子
	Approved 核准	Checked 審核	Prepared 製作
	Q.A. Section Chief	Ruru Chen	2022.12.29



PRODUCT SPECIFICATION OF OUPIIN

1. SCOPE 適用範圍

This product specification defines the product performance and the test methods to ascertain the performance of the 4973 Series 4.2 mm Wire to Board Straight Wafer, which is designed and manufactured by Oupiin Electronic Co., Ltd. This product specification is applicable but not only for those part numbers which be shown in the cover page.

本產品規格書規定了由歐品電子有限公司設計生產的 4973 Series 4.2 mm Wire to Board Straight Wafer 型連接器產品的特性及測試方法。本產品規格書適用於但不局限於封面所顯示的產品料號。

2. REFERENCE DOCUMENTS 參考文件

MIL-STD-1344A	Test method for electrical connector	電子連接器測試方法
MIL-STD-202	Test method for electrical components	電子零件測試方法
EIA364	Test method for electrical components	電子零件測試方法

3. FEATURE & DIMENSIONS 特徵及尺寸

3.1. PRODUCT DIMENSION 產品尺寸

These connectors shall have the dimensions as shown in drawing.

本產品的相關尺寸參見圖面

3.2. PCB/PANEL LAYOUT 印刷電路板佈局

The recommended PCB layout is shown in drawing.

本產品適用的 PCB layout 參見圖面

3.3. BILL OF MATERIAL 材料清單

Harmful material controlling follows the requirements of RoHS. The bill of material is described in drawing.

有害物質控制符合RoHS指令要求。本產品使用的材料參見圖面

3.4. MECHANICAL & ELECTRICAL CHARACTERISTIC 機械及電氣特性

The connector shall have the mechanical and electrical performance as described in drawing.

本產品的機械及電氣特性參見圖面

3.5. PACKAGING 包裝

Products shall be packaged according to requirements specified in purchase order for safe delivery, connector container and the packaging method are shown in package specification.

產品可依客戶指定要求包裝，包裝材料與包裝方式參見產品包裝規範



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3.6. RATING CURRENT AND RATING VOLTAGE 額定電流與額定電壓

Current Rating : (Used With # 18 AWG.)

額定電流：使用 18AWG 電子線

Circuits	2~3	4~6	7~10	11~12
Ampere	9A	8A	7A	6A

Rating Voltage : 600V DC/AC RMS

額定電壓：600V DC/AC RMS

3.7 OPERATING TEMPERATURE 使用溫度

Temperature range: -40°C ~+105°C

溫度範圍：-40°C ~+105°C

4. PERFORMANCE AND TEST DESCRIPTION 性能及測試

4.1. REQUIREMENT 要求

Product is designed to meet electrical, mechanical, and environmental performance requirements specified in **Table I**.

本產品設計符合附表一所列的機械，電氣及環境要求

4.2. TEST CONDITION 測試條件

Unless otherwise specified, all tests shall be performed at ambient environmental conditions.

除非特別註明，所有測試在室溫條件下完成

4.3. SAMPLE SELECTION 樣品選擇

Test samples shall be selected at random from current production. No test samples shall be reused.

Samples are pre-conditioned with 10 cycles of durability. Each group shall be containing 5 test samples at least.

測試樣品從現生產的產品中隨機抽取，所有測試過的樣品不得重複使用。樣品已預先插拔10次，每組測試至少有5個樣品



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Table I : Test Requirements and Methods

附表一：測試要求與方法

Items 項目	Requirements 要求	Test Methods 測試方法
1. Confirmation of Product 產品確認	Product shall be conforming to the requirements of applicable product drawing. 產品必須符合相關產品圖面的要求	Visually, dimensions and functionally inspected per applicable product drawing. 依相關產品圖面，檢查產品的外觀、尺寸及功能
2. Contact Resistance 接觸阻抗	Initial : 10 mΩ Max. 初始狀態最大 10 mΩ	Subject mated contacts assembled in housing to close circuit of 100 mA max and voltage of 20mV max. Per EIA-364-23 所述固定端子連結到一個封閉回路中測試，電流 100 mA max，電壓 20 mV max 適用：EIA-364-23
3. Insulation Resistance 絕緣阻抗	1000 MΩ Min. 最小 1000 MΩ	Measure by applying test potential between the adjacent contacts, and between the contacts and ground in the mated connector. Per EIA-364-21. 測試產品相鄰端子間以及端子與接地間的電阻 適用：EIA-364-21。
4. Dielectric Withstanding Voltage 耐電壓	There shall be no breakdown or flashover. 產品應無擊穿或閃燃	Measure by applying test potential of 1500V AC between the adjacent contacts for 1 minute. Per EIA-364-20. 樣品相鄰端子間施加測試電壓 1500V AC，時間一分鐘 適用：EIA-364-20
5. Durability 耐久性	After testing, Contact Resistance 20mΩ Max. 測試後，接觸阻抗最大 20 mΩ	Repeat mate and unmated for connector 30 cycles. Per EIA-364-09 重復進行配合產品 30 次插拔 適用：EIA-364-09



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<p>6. Humidity 恆溫恆濕</p>	<p>After testing, no damage, Contact Resistance 20 mΩ Max. Dielectric Strength should be OK, Insulation Resistance should be 500 MΩ Min. 測試後，產品無損壞，接觸阻抗最大 20mΩ；耐電壓測試 OK，絕緣阻抗最小 500 MΩ</p>	<p>Temperature: 40±2°C Relative Humidity: 90-95%. Duration: 96 Hours. Per EIA-364-31 溫度：40±2°C 相對濕度：90-95% 持續時間：96 小時 適用：EIA-364-31</p>
<p>7. Thermal Shock 溫度沖擊</p>	<p>After testing, no damage, Contact Resistance 20 mΩ Max. Dielectric Strength should be OK, Insulation Resistance should be 500 MΩ Min. 測試後，產品無損壞，接觸阻抗最大 20mΩ；耐電壓測試 OK，絕緣阻抗最小 500 MΩ</p>	<p>Temperature range from -40±3°C to +105±2°C. Start from -40±3°C, after 30 minutes, change to +105±2°C; total 30 cycles. Per EIA-364-32. 溫度變化範圍：-40±3°C ~ +105±2°C。從 -40±3°C 開始，30 分鐘後換到 +105±2°C，共 30 個循環 適用：EIA-364-32</p>
<p>8. Salt Spray 鹽霧</p>	<p>After testing, no damage, Contact Resistance 20 mΩ Max. 測試後，產品無損壞，接觸阻抗最大 20mΩ</p>	<p>5±1% salt concentration, 12 hours, 35±2°C Per EIA-364-26 鹽水濃度 5±1%，時間 12 小時，溫度 35±2°C 適用：EIA-364-26</p>
<p>9. Solder-ability 可焊性</p>	<p>There shall have a solder coverage of 95% minimum。 產品在測試完成後，焊接部位粘錫面積大於 95%</p>	<p>Soldering time : 3 to 5 Seconds Soldering Temperature : 245±5°C. 焊接時間：3~5 秒 焊接溫度：245±5°C.</p>